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## Special Report: How Kennecott concealed warnings of a possible disaster from the people of Magna

In 1988, the company found out its billion-ton tailings pond would breach in a strong quake, burying nearby homes in a deluge of mud. Instead of warning people, the copper giant decided secrecy was the best policy.

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MAGNA - The Bells long suspected they might be living in harm's way.

Kennecott Utah Copper Corp. often dispatched Darrell Bell, a company laborer, to shore up the massive embankment near their neighborhood that held back a billion tons of soupy mine waste. The impoundment, he told his wife, was too weak.

"If it came loose," Marilyn Bell recalls now, "nothing could be done to stop it."

The Bells had no way of knowing, but Kennecott executives secretly had the same fear.

And for good reason.

Chances were too high that the massive embankment would breach in a big earthquake, engineers told them in 1988.

And nearby homes, including the Bells', might be buried under an avalanche of mine sludge.

Kennecott's management team huddled every Friday afternoon for more than a year to deal with the problem. Then-President Frank Joklik ordered a cover-up to avert "panic and suits."

Joklik's strategy included:

- \* Buying homes covertly in the Bells' neighborhood, a subdivision east of downtown Magna called Green Meadows Estates;

- \* Tallying the company's legal liability by assigning a dollar figure to the lives of men, women and children who might die if the impoundment failed;

- \* Launching a 30-year, half-billion-dollar modernization to stabilize the Magna tailings pond, and

- \* Colluding with state regulators to keep the frightening engineering reports out of the public eye.

Joklik, now 79, doesn't remember things that way. "I can't reconstruct what happened 20 years ago," he said recently, directing further questions to Kennecott. "The record would speak for itself."

And current Kennecott President Andrew Harding, who has been on the job for four months, did not try to explain Kennecott's past actions.

"All I can do," he said, "is apologize for the history."

Backed by current employees and consultants, Harding says he is sure the tailings pond is now safe and will soon be completely stable. Final improvements are expected to be finished 10 years from now. It will be three decades after the world's second-largest mining company and one of Utah's most prominent corporate citizens first decided to hide the danger from the people who most needed to know.

**'Dead silence':** Even though it has been 20 years, Zip Zavodni, a geotechnical engineer for Kennecott, vividly remembers his boss' reaction to the "runout" map showing where consultants believed the muddy tailings might flow if there was a big earthquake, the kind that prompted recent seismic upgrades to the state Capitol and the Mormon Tabernacle on Temple Square.

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The line cut right through a neighborhood of modest homes just outside downtown Magna.

"There was 20 minutes of silence when Joklik first saw the runout map," recalled Zavodni. "Dead silence."

It was already a challenging time for the mining company.

The Bingham Canyon mine had just reopened in 1987 after a two-year shutdown that left more than 1,000 jobless. For Kennecott Copper to survive, it needed to modernize.

Copper processing would have to be faster, which meant ore waste, called tailings, would need more disposal space. The Magna pond had been growing since the old Utah Copper Co. started using the area just north of State Road 201 in 1908, the year the company began digging copper from the heart of the Oquirrhos. Zavodni called it a "dinosaur" because of its archaic construction 80 years before modern engineering standards.

As executives contemplated the future in 1988, the sides of the tailings pond towered 160 feet over Green Meadows Estates.

Kennecott executives thought about building the impoundment higher, nearly doubling its 1.8 billion-ton capacity for the next 30 years of tailings.

The geotechnical report by the Canadian engineering company, Klohn Leonoff, made it clear that in the worst-case earthquake in the Salt Lake Valley, a magnitude 7.5, the massive earthen box probably would burst.

The projected inundation zone sprawled a mile north, three-quarters of a mile east and a half mile south from the tailings pond, an area that included the Green Meadows subdivision.

A map updated three years later shows "most of Magna in the spill zone, assuming a 200 [sic] hundred foot embankment" and noted, "it would not be unreasonable to expect that the actual runout distances could vary by as much as a factor of two or more from those estimated," according to a 1997 memo detailing an internal company investigation.

Zavodni recalls: "[T]hat was the day that we started looking for a new, alternate structure and also started thinking how do we seismically stabilize this dinosaur - that was the 21st minute after 20 minutes of silence."

**Legal assessments:** But Kennecott executives had more than just an engineering emergency at hand. They had a legal one, too. And Joklik saw that immediately.

It was about five years before he would leave the company to lead Salt Lake City's bid to host the 2002 Olympic Winter Games and a decade before a bribery scandal forced him to resign from the Salt Lake Organizing Committee. Now a mining consultant in Salt Lake City, Joklik doesn't recall details, only a decision "to try and devise an engineering solution."

"I was confident it would work, and it did work - better than we expected," he said.

He does not recall having at-risk homes bought up. Nor an actuarial accounting of the people in the vulnerable areas, nor any attempts to sterilize the public record.

"What we undertook was approved by the state engineer and his department so we assumed that was the correct approach to do," he said. "As I say, what I remember I have told you."

But Zavodni explains the reasons for keeping the problem quiet: "This was basically Frank Joklik's company, and it was Frank's method of management that we were going to settle this in-house before we panicked the community."

Outside legal reviews Joklik requested gave the same advice about limiting the liabilities. And not just the company. Its officers might be criminally liable, too, they said. Management must act fast to fortify the tailings pond. It also had a moral and legal duty to alert the public about the risk, they agreed.

One of the lawyers, Robert Connery, of Holland & Hart in Denver, consulted a world-renowned expert on how soil behaves in earthquakes: H. Bolton Seed, of the University of California, Berkeley. Seed confirmed the methods, techniques and findings of the original geotechnical study.

But Joklik "didn't like" the advice and fired the lawyer, according to the 1997 investigation memo. Connery's conclusion suggests why:

"I do not mean to be an alarmist about those liabilities, but the only remedy or mitigation for some of them is effective disclosure to those affected on a timely basis once the potential risks become clear," he wrote.

While executives talked over the opinion, Rio Tinto was reported to be in acquisition talks with British Petroleum Minerals, Kennecott Copper's parent company.

Then, about a year after Rio Tinto's 1989 acquisition of Kennecott, there was another opinion. An unnamed lawyer for Parsons Behle and Latimer, a Salt Lake City firm that had represented the copper company since its beginning, concluded that the impoundment was "unreasonably dangerous."

Two lawyers who assessed Kennecott's potential liability would not speak to *The Tribune*, citing attorney-client confidentiality. A third said he couldn't remember considering the southeast corner.

But Ray D. Gardner, then Kennecott's chief legal officer, held back nothing in his criticism of the company's management as he reflected on the situation in 1997. He wrote in a memo that executives should have made full disclosure to the people who live, work and travel in the area.

"Contrary to the unequivocal advice of two highly regarded law firms, Kennecott's management did not provide the requisite warning because Mr. Joklik believed it would cause 'panic and suits,' " Gardner wrote.

He also cited attorney-client confidentiality and declined to be interviewed.

"Even assuming Mr. Joklik was correct in this assumption, the public has a right to know of the hazard, and Kennecott has a legal and moral duty to disclose the risk and advise potentially affected persons of the company's mitigation efforts," he wrote in the memo.

**Buying spree:** From the beginning, Kennecott executives decided on a course of action driven by secrecy, not public disclosure.

By early 1990, the company decided to secretly buy homes at risk of being buried if the tailings pond broke. Its Land Department enlisted an "undisclosed agent" to buy up to 200 homes in Green Meadows Estates.

Salt Lake County records show The Salt Lake Investment Co. bought 39 homes in the subdivision during 1990 and 1991. The records also show "SLI Commercial" held them until 1995, when Kennecott's finance and legal executives said the homes could start being sold off.

Salt Lake Investment owner Howard Kent denies he was Kennecott's clandestine middleman.

"I wasn't aware that Kennecott was doing anything in the area," he said recently.

But Kennecott now acknowledges the Magna home-buying spree. In a memo the company recently gave to *The Tribune*, Tom Albanese, now Rio Tinto's president, gave a 1998 task force report on the southeast corner of the tailings pond.

He advised that the company could "proceed with the disposition of the remaining nine homes and lots in the Green Meadows Estates subdivision" once the hazard had been minimized.

**The sketchy public record:** The State Engineer's Office had no trouble grasping the enormity of the tailings-pond studies. And it understood why Kennecott wanted to keep the studies out of public view.

The investigation memo tells about a Kennecott employee's account of a meeting with the state engineer. At the meeting, the employee explained the extent of the stability problems and shared the seismic studies, but they "were not retained in the agency records because of concerns 'that they would fall into the public domain.'"

"The state engineer provided informal assurances that he had 'no intention . . . of going public with the information,'" the memo continued. It also said state regulators did not retain any copies of the report and would

make public only the documents pertaining to the north expansion, which Kennecott built to replace the risky and soon-to-be idled tailings pond.

The public record remains sketchy.

The files on the U.S. Army Corps of Engineers' 1995 Environmental Impact Statement on the tailings-pond project and those in the Utah Division of Oil, Gas and Mining did not contain any engineering reports on the old impoundment. Just one contained a reference to a southeast corner study.

The state Water Rights Division, which oversees impoundments like the Magna tailings pond, had only three of at least 18 technical reports that were prepared on the southeast corner problems.

At the Dam Safety Office, which regulates structures such as the tailings impoundment, one Klohn Leonoff report was on a closet shelf. In contrast, the files on the north modernization were voluminous. The design and evolving plans for the construction of a new tailings pond built to replace the old one took up 21 thick volumes.

Why state dam regulators might be willing to keep the documents secret appears puzzling in light of a 1989 letter from the State Engineer's Office thanking Kennecott for a personal presentation on the southeast corner the previous month. It vividly identifies the state's concern.

"We have reviewed the documents and are concerned that the factors of safety and probabilities of failure are marginal for the existing pond and somewhat alarming for the expanded pond that could reach an eventual height of 400-500 feet" (in a proposed upward expansion, which was never built).

Former Department of Natural Resources Director Bob Morgan, Utah's first dam safety officer and state engineer at the time of the memo, does not recall hearing about instability on the southeast corner nor agreeing to keep secrets.

Now retired, Morgan suggested the memo refers to someone else on the dam-safety staff. "A lot of times when they say State Engineer," he said, "that's pretty generic."

But he added that it's possible that some nonessential Kennecott reports might not have gotten into the public record.

"The advice I would give them is that if this is something sensitive that you don't want the public, you know, to see, and if we did not need it in the files, then they should take it back home," he added. He wants to make it clear, though: "In no way would the State Engineer's Office ever jeopardize public safety."

**Calculating the liability:** The "risk assessment" Joklik ordered in 1992 was yet another example of Kennecott's approach in dealing with the problems on the southeast corner.

Employees of the company's Land Department were to tally the "approximate number of people involved . . . approximate spread of the population age [normal, young, aged] . . . approximate number of children and adults present at each school . . . approximate value placed on loss of life by Utah courts, with variation by age."

Keith Hansen, who was head of the Land Department at the time, but is now retired, declined to comment.

"I wasn't one of the decision-makers," he said. "If you want to know what happened, you need [to] talk to Kennecott."

Bruce Farmer, Kennecott president from 1996 to 2002, downplays any negative implications of the assessment.

Contacted at his home outside Sydney, Australia, he noted: "We valued life higher than the Department of Transportation of the United States."

In the mid-90s, the Transportation Department put the value of a human life at \$2.6 million.

Years later, Kennecott's chief legal officer warned that the human tally's "potential for misinterpretation . . . is chilling."

"Was the [Rio Tinto] risk management group truly interested in the monetary value of a child's life in Magna,

Utah?" the 1997 memo asked, suggesting how a skillful trial lawyer might try to spin the assessment. "If so, why?"

Such calculations leave Marilyn Bell cold.

"Kennecott did the community a disservice in not warning people," Bell said. "We should have had the option of choosing whether we wanted to be in harm's way or away from it."

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